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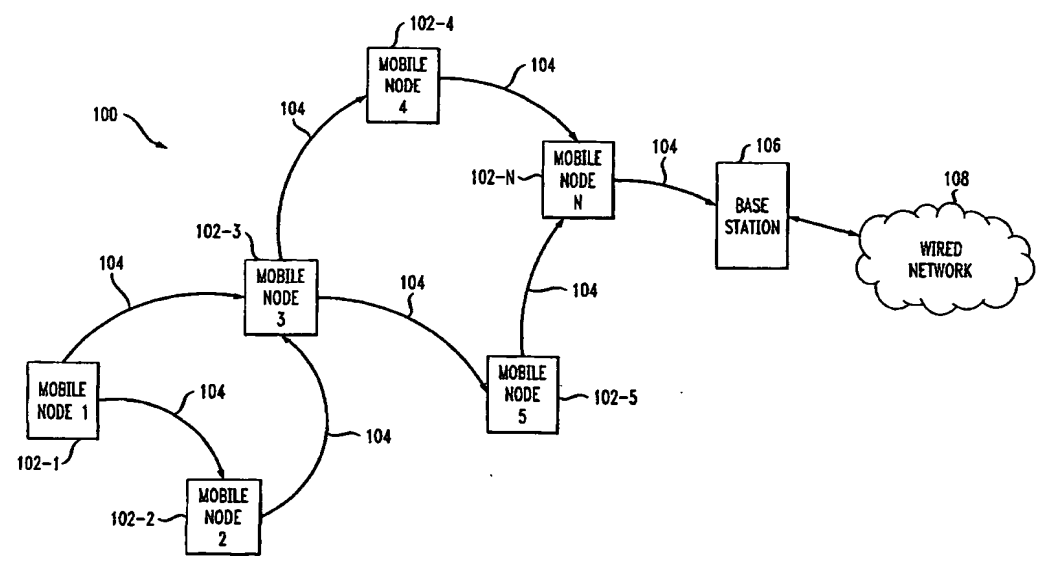
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(54) Title: MAXIMUM LIFETIME ROUTING IN WIRELESS AD-HOC NETWORKS



(57) Abstract: Routing techniques are provided that meet performance objectives associated with an ad-hoc network environment and the like. The techniques of invention serve to substantially maximize the lifetime of the network. In one aspect of the invention, a packet routing technique for use in a node of a distributed network comprises the following steps/operations. Queues for storing packets are maintained, wherein at least one queue is associated with a link existing between the node and a neighboring node, and a queue has a height associated therewith. A route is then determined for one or more packets stored in the queues based on heights of queues at neighboring nodes, such that energy constraints associated with the node and the neighboring nodes are substantially maximized. As mentioned, the distributed network is preferably a mobile ad-hoc network wherein the node and the at least one neighboring node communicate over a wireless link.

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